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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/701,791	01/19/2001	Eiichi Tazawa	74457/07588	8493

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EXAMINER

LAZOR, MICHELLE A

ART UNIT

PAPER NUMBER

1734

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/701,791

Applicant(s)

TAZAWA ET AL.

Examiner

Michelle A Lazor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 7-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 and 3 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 7-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4/16/01.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claims 7 – 14 are objected to because of the following informalities: The method claims are improperly dependent on apparatus claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art and Nakamura ("Recent Cements"; Concrete Products, Industry and Products No. 53, p. 42 - 53).

The admitted prior art discloses manufacturing chemically pre-stressed components, which comprise molding concretes formed by kneading a cement composition (page 7, lines 17 – 18) containing a cement and an expansive additive (page 1, line 24 – page 2, line 4), but does not specifically disclose curing the same in high temperature high pressure curing water at over 100°C. However, Nakamura discloses curing using high temperature high pressure curing water at over 100°C. (page 3, lines 5 – 21). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use high temperature high pressure curing water at over 100°C to promote hardening of the concrete (page 1, lines 26 – 29). Moreover using the

high temperature water would promote rapid curing of the cement composition because cement curing times are known to decrease with an increase in temperature

Allowable Subject Matter

4. Claims 2, 3, and 7 – 14 are allowed. There was no reference in the prior art search that disclosed, taught, or suggested a high temperature high pressure underwater curing apparatus with a plurality of pressure resistant vessels, comprising: a curing water supply device; a heater; a deaeration valve, wherein a transfer pipe is disposed to a lower portion of each vessel being connected to an optional portion of other pressure resistant vessels for delivering curing water, a transfer pipe disposed to an upper portion of each pressure resistant vessel being connected to the lower portion of other pressure resistant vessels for receiving curing water, and the respective pressure resistant vessels are connected by the two transfer pipes so as to form a circulation channel to each other.

In addition, there was no reference in the prior art search that disclosed, taught, or suggested a method of curing concrete molding products using the high temperature high pressure underwater curing apparatus comprising a curing step of filling the inside of the pressure resistant vessel with curing water, supplying pressurized air and curing concrete molding products contained in the vessel; transferring curing water filled inside the pressure resistant vessel through a transfer pipe; and taking out the concrete molding products after curing from the inside after the completion of the transfer step, in which each of the steps is repeated successively being shifted on each of the pressure resistant vessels and concrete molding products are cured while transferring the curing water to a plurality of the pressure resistant

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vessels to form a circulation channel. None of the prior art found disclosed an underwater curing apparatus that included all of the limitations above as claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle A Lazor whose telephone number is 571-272-1232.

The examiner can normally be reached on Mon - Thurs 6:30 - 4:00, Fridays 6:30 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.



MAL
1/7/04



**MICHAEL COLAIANNI
PRIMARY EXAMINER**